(Unclassified // FOUO) CSWC Operational Period Summary 0600 December 17 2017 to 1800 December 17 2017



Thomas Fire, Santa Barbara County.

Photo Credit: LA Times



Duty Officer	
EDO	Tabitha Stout
CSWC Watch Officer	Sarah Murdock(Day) Janice Webb (Night)
STAC Duty Officer	STAC@caloes.ca.gov 916-275-4069
FDO	Dave Franklin
LDO	Mark Baldwin
IDO	Kyle Noderer
CDO	Patti Tran
SDO	Karla Benedicto
PIO	Brad Alexander
TDO	Mike Beckstrand
ITDO	Spencer Ung
EQTP	Sharon Blankenheim
Tribal Liaison POC	Denise Shemenski
Access and Functional Needs POC	Vance Taylor

National Terrorism Advisory System



Unclassified // FOUO 24 Hour STAC Report

• Next report 12/18/17



SITUATION SUMMARY

Cal OES Activation Status

State Operations Center	Inland Region EOC	Coastal Region EOC	Southern Region EOC
Normal Operations	Normal Operations	Normal Operations	Normal Operations

2017 December Wildfire Activations

- The State Operations Center (SOC) has resumed Normal Operations as of 12/17/17 at 1900 hours. On 12/18/17 the SOC will activate at Level 3 with an operational period of 0700-1900 hours.
- The Cal OES Southern Region EOC (SREOC) has resumed Normal Operations as of 12/17/17 at 1900 hours. On 12/18/17 the SREOC will activate at Level 3 with an operational period of 0800-1700 hours.
- The California Department of Public Health (CDPH) and Emergency Medical Services Authority (EMSA) activated the Medical and Health Coordination Center (MHCC) at Level 3 (low).
 - The MHCC will be open between 0800-1700 hours until further notice.

2017 December Wildfire Cal OES Southern Region Emergency Operations Center Deployments

- 1 Cal OES Southern Region Deputy Regional Administrator (RA) to Southern Region EOC
- 1 Cal OES Southern Region Deputy Regional RA to Southern Region EOC
- 2 Cal OES Southern Region Senior Emergency Services Coordinators (ESCs) to Southern Region EOC
- 1 Cal OES Southern Region ESC to Southern Region EOC
- 1 Cal OES Southern Region Senior ESC is assigned to the State Operations Center (State IA Coordinator LAC)
- 1 Cal OES Inland Region Deputy RA to Southern Region EOC
- 1 Cal OES Inland Region ESC to Southern Region EOC

Presidential Major Disaster Declaration

 On 12/08/17, President Donald J. Trump declared that an emergency exists in the State of California and ordered Federal assistance to supplement State, tribal, and local response efforts due to the emergency conditions resulting from wildfires beginning on 12/04/17, and continuing.

Cal OES Fire and Rescue Branch Fire Resources Deployed to Wildfires in Southern California

 Please see the attached summary of resources assigned to the fires throughout Southern California, that includes OES Resources and Local Government Resources.



SITUATION SUMMARY

Cal OES COASTAL REGION

· Nothing significant to report.

Cal OES INLAND REGION

• Nothing significant to report.

Cal OES SOUTHERN REGION

• See Fire Activity slides.



Cal OES Fire Preparedness Levels			
National	Northern California	Southern California	
Preparedness Level 2	Preparedness Level 1	Preparedness Level 3	
	Multi-Agency Coordination System MACS Mode: 1	Multi-Agency Coordination System MACS Mode: 2	

Thomas, Vegetation Fire, Ventura and Santa Barbara Counties

Location: Hwy 150 x Hwy 126, north of Santa Paula Jurisdiction: Local DPA, SRA, Contract County

Per the Cal OES Duty Officers and ICS-209 as of 12/17/17 at 1736 hours:

- 270,000 acres, 45% contained
- Unified Command Unified Command Ventura County, Santa Barbara County, City of Ventura, Los Padres National Forest, Ventura County Sheriff, CAL FIRE
- · Active fire behavior with backing, flanking, and creeping
- · Mandatory evacuations continue to be issued ahead of fire growth
- · Structure threat continues

Activations

- · Ventura County EOC is activated at Level 2, also covering the Town of Ojai
- Santa Barbara County EOC is activated at Level 3 (highest level)
- · City of Santa Barbara EOC is activated at Level 2
- City of Carpinteria EOC is activated at Level 1 (lowest level)
- City of Montecito EOC is activated at Level 1 (highest level)



<u>Thomas, Vegetation Fire, Ventura and Santa Barbara Counties (continued)</u> **Deployments**

- 6 Cal OES Fire and Rescue Branch Assistant Chiefs (ACs) are deployed to the incident
- 2 Cal OES Law Enforcement Branch Assistant Chiefs to Santa Barbara EOC
- 1 Cal OES Southern Region Deputy RA to Ventura County EOC
- 1 Cal OES Southern Region Senior ESC is deployed to the Ventura County EOC
- 1 Cal OES Southern Region ESC is deployed to the Ventura County EOC
- 1 Cal OES Southern Region ESC is deployed to the Ventura County (LAC Liaison)
- 1 Cal OES Southern Region ESC is deployed to Santa Barbara County EOC
- · 1 Cal OES Inland Region Acting Deputy RA to the Ventura EOC
- 1 Cal OES Inland Region ESC is deployed to the Santa Barbara EOC
- 1 Cal OES CSTI Emergency Management Coordinator II is assigned to Santa Barbara County
- 7 Public Safety Communications Technicians (PSCT) are assigned
- 2 Public Safety Communications Technicians (PSCT) assigned to Prado mobilization fire support

FMAG

- On 12/05/17 the FMAG was approved by FEMA, FEMA 5224-FM-CA.
- On 12/07/17 the request to add Santa Barbara to the FMAG as a Contiguous County was approved.

Proclamations

- Ventura County has submitted a proclamation requesting a Gubernatorial Proclamation and a Presidential Declaration. There is no request for state assistance.
- The City of Ventura has submitted a proclamation. There are no requests for state or federal assistance.
- The City of Santa Paula has submitted a proclamation. There are no requests for state or federal assistance.
- On 12/05/17, Governor Edmund G. Brown Jr. issued an emergency proclamation for Ventura County due to the effects of the Thomas Fire, which has damaged critical infrastructure, destroyed hundreds of homes and caused the evacuation of residents.
- On 12/07/17, Governor Edmund G. Brown Jr. issued an emergency proclamation for Santa Barbara County due to the effects of the Thomas Fire, which has threatened homes and other structures and caused the evacuation of residents. The Governor also requested a Presidential Emergency Declaration for direct federal assistance to supplement the state and local emergency response to the fires burning in Southern California, following the emergency proclamations issued earlier this week for San Diego, Los Angeles and Ventura counties.
- On 12/08/17, the County of Santa Barbara submitted a proclamation of local emergency requesting CDAA funding and any other State and Federal funds that may be available



<u>Thomas, Vegetation Fire, Ventura and Santa Barbara Counties (continued)</u> Evacuations

Total – 2,962 persons in Ventura County and 19,872 persons in Santa Barbara County

Mandatory:

- · Unincorporated Ventura County Area
 - Residents and day visitors of Rose Valley
- · Unincorporated Fillmore Area
 - The area of Hall Rd. to the west, Sespe Creek to the east and west, Fillmore City limits to the south, and Los Padres National Forest boundary to the north, Burson Ranch to the east.
- Santa Barbara County
 - Santa Barbara County currently has issued 19,872 mandatory evacuations.
 - The area east of and including N. San Marcos Rd. to Hwy 154 and north of Cathedral Oaks Rd. to the intersection of Hwy 154 and N. San Marcos Rd. (near top of San Marcos Pass)
 - The area east of and including N. San Marcos Rd. to Hwy 154 and north of Cathedral Oaks Rd. to the intersection of Hwy 154 and N. San Marcos Rd. (near top of San Marcos Pass).
 - The area north of Highway 101, south of 192, west of Toro Canyon Rd., and east of Summit Rd./east of the Country Club
 - The area east of Hwy 154 to Mission Canyon Rd. and north of 192 to East Camino Cielo
 - Montecito and Summerland area north of Alameda Padre Sierra/South Salinas St. and Highway 101, south of 192, east of Mission Canyon Rd., and west of Hot Springs/Summit Rd.
 - North of Hwy 192 to East Camino Cielo between Hwy 150 and Mission Canyon Rd.
 - Hot Springs Rd. to Buena Vista Rd., from Hwy 192 north to East Camino Cielo
 - Buena Vista east to the County line and north of Hwy 192 (E. Valley Rd.), to include the 900 block of Park Ln. east
 - SR-192 north to E. Camino Cielo between Toro Canyon Rd. and Linden Ave.
 - Carpinteria area east of Toro Canyon Rd. East to Hwy 150, north of Hwy 192 to Camino Cielo.
 - Carpinteria area east of intersection of Casitas Pass Rd. & Hwy 192, north of Hwy 192, & west of the county line.

<u>Thomas, Vegetation Fire, Ventura and Santa Barbara Counties (continued)</u> Shelters

- Ventura County Fairgrounds Miners Building, 10 W Harbor Blvd., Ventura
 - · Midnight Count: 254
- University of California Santa Barbara, Santa Barbara, 515 Ocean Rd., Santa Barbara
 - Midnight Count: 172
- Santa Barbara Bowl, 1120 N. Milpas St., Santa Barbara. This is for the new Montecito mandatory evacuations.
- Animal Shelters:
 - · Ventura County Humane Society, 402 Bryant St., Ojai
 - Ventura Fairgrounds horse sheltering area is full. Horses are being diverted to Earl Warren Showgrounds in Santa Barbara and Meadows of Moorpark.
 - Santa Barbara Humane Society (small animals), 5399 Overpass Rd., Santa Barbara
 - Earl Warren Showgrounds (large animals), 3400 Calle Real, Santa Barbara

Evacuation Center

• Santa Barbara Bowl, 1120 N. Milpas St., Santa Barbara.

Major Road Closures

- Hwy 33 between Hwy 166 & Fairview Rd (Santa Barbara and Ventura County)
- Hwy 192 between Camino Viejo & Hwy 150 (Santa Barbara County)
- SR 154 between Cathedral Oaks Rd. (Hwy 92) to Hwy 246 (now a permanent closure)
- Hwy 150 between Hwy 192 & Santa Ana Rd. (Ventura County)

Critical Infrastructure

Santa Barbara County:

- There are approximately 1,200 customers currently without power in Santa Barbara County.
- Southern California Edison is pre-staging generators throughout the County in response to the fire weather watch and "sundowners".
- Twelve generators have been staged by Edison that will only be used to support in the event of a multiple day outage.
- The County Contingency planning for fuel and critical infrastructure emergency power backup is ready in case there are issues with extended power loss.



<u>Thomas, Vegetation Fire, Ventura and Santa Barbara Counties (continued)</u> Schools

• Next Schools report will be attached 12/18/17.

Recovery

- · Local Assistance Center (LAC), Poinsettia Pavilion, 3451 Foothill Rd., Ventura
 - Hours of operation: 0900-1900 hours
- The Individual Assistance Preliminary Damage Assessments (PDA) are scheduled to begin 12/18/17.



MAJOR ROAD / HIGHWAY / BRIDGE CLOSURES

Major Road Closures			
Northern California	Central California	Southern California	
No Lifeline Route Closures	No Lifeline Route Closures	No Lifeline Route Closures	

Lifeline Routes

· There are no lifeline route closures.

Non-Lifeline Routes:

· There are no lifeline route closures.

Wildfire Closures:

Ventura County:

SR 150 was closed from 1.1 mi east of Ojai at Reeves Rd. to Stonegate Rd. in Santa Paula. The route has not reopened.

Santa Barbara and Ventura County:

• SR 150 was closed from the junction of SR 192 to 3.2 mi west of the south junction of SR 33 at Santa Ana Rd. The route has not reopened.

Santa Barbara County:

• SR 192 was closed from Camino Viejo Rd. in Montecito to the junction of SR 150. The route has not reopened.

Emergency Center Activations:

• There are no Emergency Center activations at this time.

Interactive Travel Forecast Map Based on Weather Conditions Provided by National Weather Service (Prototype)

http://www.wrh.noaa.gov/wrh/travel/?wfo=mtr





California 911 System

	CA 911 Outages	
Northern California	Central California	Southern California
No 911 Outages	No 911 Outages	911 Outages

911 Outages/Remote/Community Isolations:

Montecito, Santa Barbara County

On 12/17/17 at 0633 hours. The CSWC was notified that the Montecito Fire Protection District 9-1-1 call taking equipment was down due to UPS failure.

 Call taking is being handled at Santa Barbara County Sheriff. Support is being provided by Montecito FPD staff that have relocated to the Sheriff's Department.

As of 12/16/17 at 1838 hours, the CA 911 Branch reported that Montecito Fire Protection District 9-1-1 has returned to their building, but they are still having trouble with their call taking equipment.

- They will open a ticket with their vendor to resolve the issue.
- Santa Barbara County Sheriff covers the Montecito and Summerland jurisdiction, and they are fully operational.

Santa Paula, Ventura County 911 Outage

On 12/05/17, the Frontier Santa Paula remote central office in Ventura County reported that 329 landlines had no dial tone due to power failure as a result of the Thomas Fire. Currently, these customers are unable to dial out to 911. However, wireless service is not impacted at this time. The Public Safety Answering Point (PSAP), Ventura County Sheriffs Office (VCSO), are taking calls normally and have been notified of the isolation.

- Per the CA 911 Branch on 12/17/17 at 1838 hours:
 - Per Frontier, the Topa Hut remote office has been temporarily restored through a microwave shot from the South Mountain.
 - Dial tone is restored for customers with access lines and wiring that is in tact.
 - Individual customers with damaged distribution lines are still out of landline service.
 - · Destroyed lines and poles in the area will need to be repaired before service can be re-established fully.
 - Repair work is in progress, as some access to the affected area is now being granted.
 - Frontier Communications teams continue to assess damage when allowed into affected areas and have replaced 17-poles thus far.
 - No ETTR has been provided at this time for full restoral.



California 911 System (cont.)

Service Interruptions:

Per the CA 911 Branch on 12/14/17 at 1844 hours:

Due to massive infrastructure damage caused by the Thomas Fire, the ongoing wireline community isolation in Santa Paula will not be resolved in the immediate future.

- A temporary microwave solution is being stood up in the area, however even with the microwave solution, those individuals customers with damaged distribution lines will still be out of landline service.
- · No ETTR has been provided at this time.



WEATHER OF CONCERN

Weather of Concern

- Gusty Santa Ana winds will continue through 8 PM PST this evening. The combination of gusty northeast winds, low relative humidities and very dry fuels will maintain extreme fire danger through this time.
- Winds should subside later tonight into Monday, and onshore flow will provide better humidity recovery through Tuesday.
- Longer range forecasts are calling for another potentially strong northerly wind event Wednesday into Thursday, affecting Southern Santa Barbara County and portions of Los Angeles and Ventura Counties.

Active Weather Warnings, Watches and Advisories by County:

https://alerts-v2.weather.gov/counties/CA



WEATHER SYNOPSIS BY REGION

NORTHERN CALIFORNIA

*** High Risk continues this morning for strong gusty N-NE/Offshore winds across Bay Area, Diablo-Santa Cruz Mountains, SW Sacramento Valley, and SE Mid Coast PSA's ***

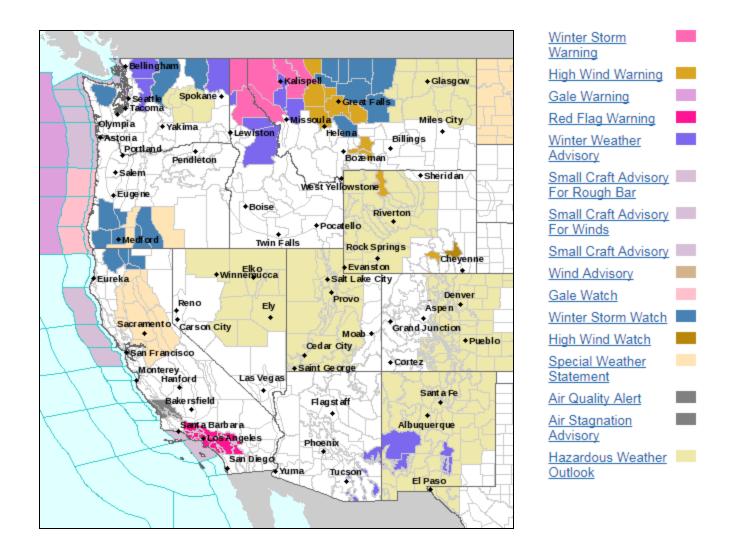
Residual gusty N to NE and even offshore flow will affect a large portion of the North Ops region this morning. Then speeds will gradually lower this afternoon. Gusts between 20 to 30 mph will be commonplace with peak values as high as 40 mph favoring the higher ridgetops found within the Bay Marine, Diablo-Santa Cruz PSA's as well as along the west slopes of the Cascade-Sierra ranges and within portions of the Sacramento Valley. Humidity values will also be marginally low with values in the 20s and 30s and some isolated upper teens. A High Risk has been designated for the portions of the Sacramento Valley, Mid Coast, Bay Area and Diablo-Santa Cruz Mountains PSA's this morning. Winds will be much lighter on Monday as the ridge takes over. A gustier southerly flow should develop across the far north and over the higher Cascade and Sierra ranges Tuesday and Tuesday night as a Pacific system approaches. Downslope wind gusts between 30 to 40 mph will be possible in the Weed area by the afternoon. Humidity values will remain marginally low, except for along the coast, with afternoon readings in the 20 and 30s during this period. Another potent cold frontal passage is expected Wednesday. This system appears to be cooler and have more moisture with the frontal passage compared to its predecessor. The best chance for wetting precipitation would be found across the North Coast...Northwest Mountains and Northern Sierra PSA's. Conditions would become drier with lowering humidity and residual gusty N to NE and offshore winds Thursday and Friday. A drier N to NE flow pattern should remain into the weekend.

SOUTHERN CALIFORNIA

- ***Strong offshore winds across Southern California through this afternoon***
- ***Moderate to strong offshore winds possible Wednesday night through Friday morning***

Strong surface high pressure over the Great Basin will bring northeast winds of 20 to 30 mph with gusts to 50 mph to the mountains and below the canyons and passes of Southern California through this afternoon. There will also be local offshore winds of 10 to 20 mph with gusts to 35 mph over Central California and the deserts through this afternoon. Winds will decrease and become more localized across Southern California this evening through Monday morning as surface high pressure weakens. Winds will become light across the entire region by Monday afternoon. The back side of a Pacific trough will bring near to a little above normal temperatures today, with 40s to low 50s across the mountains and 60s to low 70s in the valleys. Temperatures will warm several degrees both Monday and Tuesday as a ridge of high pressure aloft moves inland over California. Minimum humidity will be mainly between 15% and 30% today and then drop into the teens Monday and Tuesday. A trough will move inland into the Pacific Northwest and then drop into the Great Basin causing temperatures to cool to near normal. Scattered snow showers with light accumulations will be possible over the Sierra Wednesday. This trough will also bring westerly winds of 20 to 30 mph with gusts to 50 mph to the wind prone mountain and desert areas Wednesday. Offshore flow will occur behind this trough Wednesday night through the end of this week, but the strength and duration of this event is in question depending on the exact track of the trough. Temperatures will warm Friday through next weekend as a ridge builds off the California Coast.

WEATHER MAP



Cal OES LAW ENFORCEMENT MISSIONS

Cal OES Law Missions

2017-LAW-44137, 12/16/17, 2000 hours, Santa Barbara Sheriff's Department (SBSD) is requesting LEMA resources to assist with evacuations, traffic and security. The Los Angeles County Sheriff's Department (LASD) is responding with (1) Mobile Field Force (MFF). SBSD is requesting that the MFF be on scene at 0800 hrs., on 12/17/17. Mission Ongoing

Emergency Management Assistance Compact

Cal OES Emergency Management Assistance Compact (EMAC) Missions

- 2017-FIRE-43709: On 12/05/17, the Cal OES EMAC Coordinator, in support of the Cal OES Fire Branch, sent an EMAC broadcast to 8 States requesting 50 Engine Strike Teams for a total of 250 engines.
 - Oregon 15 strike teams (75 engines total) committed and currently assigned to fire incidents in California.
 - Montana 1 strike team and 2 task forces (17 engines total) committed and currently assigned to fire incidents in California.
 - Idaho 2 task forces (10 engines total) committed and currently assigned to fire incidents in California.
 - New Mexico 1 task force (5 engines total) committed and currently assigned to fire incidents in California.
 - Utah 5 task forces (31 engines total) committed and currently assigned to fire incidents in California.
 - Washington 2 strike teams (10 engines total) committed and currently assigned to fire incidents in California.
 - Total number of engines is 148
 - The Cal OES Fire Branch is working with the other states on availability of the remaining engines.
 - Interstate Compact Nevada (5 engines total) and currently assigned to fire incidents in California.
- 2017-FIRE-44093: 2017 December wildfires have resulted in an increased need for Imagery Awareness and Assessment (IAA) operations
 to support CALFIRE suppression efforts in Southern California. MQ-9 crews from the state of Texas to support 24/7 operations of the MQ-9
 in support of the Southern California Fires.
- 2017-SOC-43430: Cal OES Individual Assistance (IA) Branch requested two (2) IA Coordinators in support of the 2017 October Statewide Fire Recovery efforts.
 - Two (2) IA Coordinators from the State of Washington will provide support in a Joint Field Office, Local Assistance Center, or in the field as needed.
 - One (1) IA Coordinator from the State of Washington demobilized and will be traveling back home today, 12/15/17.
 - One (1) IA Coordinator from the State of Washington will continue to provide support in a Joint Field Office, Local Assistance Center, or in the field as needed until 12/23/17.

Cal OES MISSION TASKING

Cal OES Missions

- 2017-SOC-44098: CalRecycle Debris Management Team in Ventura County.
- 2017-SOC-44098: CNG Personnel needed to support and sustain 24 hour mapping of MQ-9 (On Scene)
- 2017-SOC-44022: Two E-BAM (air monitors) from Air Resources Board/Office of Emergency Response to monitor smoke from the Thomas Fires. Location one: Olga Reed Elementary School (480 Centennial St., Los Alamos); location Two: Carpinteria City Hall (5775 Carpinteria Ave, Carpinteria) (On Scene)
- **2017-SOC-43934:** City of Ventura requested ten Safety Assessment Program (SAP) inspectors to assist with building inspections due to damage from the Thomas Fire. Requested to report to Ventura City EOC on 12/12/17 at 0800 hours.
- 2017-SOC-43821: DTSC to remove household hazardous waste from over 500 residential lots in Ventura County.
- 2017-SOC-43711: CDPR (DPR) to deliver ice to Cal OES SOC for drinks and meals, on a continual basis until fire event is over.
- 2017-SOC-43663: DGS stage two ADA Single Combos (one Single ADA Shower, Toilet & Sink) to Los Alamitos State Staging area for two weeks in preparation for potential needs in Southern California.
- 2017-SOC-43628: FAST Team Lead to report to Ventura EOC.
- 2017-FIRE-43624: Aircraft with all support personnel for infrared imagery and perimeter mapping.
- 2017-SOC-43610: SOC requesting from CNG two personnel from CA State Military Reserve (CSMR) Air Mission Support Team (AMST) to support the air coordination group. The estimate is 21 days duration.
- 2017-SOC-43584: LNOs and support personnel to assist SREOC, Ventura County IC and the ACG in Ventura, Los Angeles, San Diego and San Bernardino counties.
- 2017-SOC-43581: Operational distribution point (State Staging Area) in Los Alamitos Joint Forces Training Base (JFTB) to assist with affected areas.
- **2017-FIRE-43576:** Four National Guard Type-1 helicopters with water dropping buckets and personnel transport capabilities, two National Guard MAFF's.
- **2017-FIRE-43571:** Two Modular Airborne Firefighting Systems (MAFFS) C-130J models activated to perform aerial firefighting operations in Southern California including water dropping with facilities opened at Channel Islands to support MAFFS Operations.
- 2017-FIRE-43624: One National Guard Remotely Piloted (MQ-9) with infrared imagery.



Cal OES MISSION TASKING

Cal OES Missions (continued)

- 2017-SOC-43628: FAST Team Lead needed to report to Ventura County EOC.
- **2017-SOC-43621:** Requesting that the Lancaster Armory extend their current shelter hours of operations to 24-hours a day starting 1700 hours on 12/05/17.
- 2017-SOC-43565: CalTrans Agency Rep for SOC support.
- 2017-SOC-43753: Caltrans to escort the Salvation Army through the road closure on Hwy 33 to conduct feeding at the Nordhoff High School shelter in Ojai at 0600 hours on 12/08/17.
- 2017-Cal OES-42559: Weather station installed to gather real time rainfall data by Air Resources Control Board (On Scene)
- 2017-SOC-41344: Individual Assistance (IA) request for cache phones for each lead for the LACs/DRCs for the Governors Office to contact them
- 2017-IREOC-38683: CalRecycle Debris Management Task Force (Helena Fire)
- 2017-IREOC-38682: DTSC Hazardous Waste Task Force (Helena Fire)
- 2017-SOC-38645: One California Department of Transportation Archeologist to support the Joint Field Office (JFO). In coordination with a Cal OES Senior Environmental Planner, the Associate State Archeologist will review Disaster Damage Descriptions for potential California Historical Resources Information System (CHRIS) requests and request CHRIS reports when necessary.
- 2017-Cal OES-38400: One Air Quality E-BAM modem for Klamath (Del Norte OA)
- **2017-Inland-37776:** Two Air Monitors for Mariposa County (On Scene)
- **2017-Coastal-37716:** One Air Monitor for Humboldt County (On Scene)
- **2017-Cal OES-35819:** Twelve Caltrans engineers requested to conduct damage and site inspections throughout the state for impacts related to 2017 February Winter Storms. The lead engineer will report to the Joint Field Office to coordinate the response.





Mission:

We protect lives and property, build capabilities, and support our communities for a resilient California.

We achieve our mission by serving the public through effective collaboration in preparing for, protecting against, responding to, recovering from, and mitigating the impacts of all hazards and threats.